

### **REMARKS**

Applicants thank the Examiner for the thorough examination given the present application.

#### **Status of the Claims**

Upon entry of the present amendment, claims 3-4 and 9-11 will be pending in the present application. Claims 3-4 and 11 have been amended. Claim 2 has been cancelled herein. Reconsideration and allowance of all of the pending claims are respectfully requested.

The amendments to claims 3-4 and 11 do not add new matter to the application as filed. Claims 3-4 has been amended to depend from claim 11. Claim 11 incorporates the subject matter of claim 2 except that a+b+c is now a numerical number of from 330 to 1000. Support for this amendment can be found in the present specification, *inter alia*, at Table 1 on page 18 for deinking agents 1-3 and 10-13. Accordingly, no new matter is added.

Applicants submit that the present Amendment is merely formal in nature, reduces the number of issues under consideration, and places the case in condition for allowance. Entry of the present amendment is proper to place the claims in better form for appeal.

Applicants respectfully request the Examiner to reconsider and withdraw the rejections in view of the following remarks.

#### **Issues under 35 U.S.C. § 102**

1) The Examiner has rejected claims 2-4 and 9-11 under 35 U.S.C. § 102(b) as being anticipated by Urushibata et al. '316 (U.S. 5,304,316).

2) The Examiner has also rejected claims 2-4 and 9-11 under 35 U.S.C. § 102(b) as being anticipated by Ishibashi et al. '243 (U.S. 5,302,243).

3) The Examiner has also rejected claims 2-4 and 9-11 under 35 U.S.C. § 102(b) as being anticipated by Ikeda et al. '169 (U.S. 6,346,169).

Applicants respectfully traverse. Reconsideration and withdrawal of the rejections are respectfully requested based on the following considerations.

Legal Standard for Determining Anticipation

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claim is known in the prior art.” *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001) “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

The Present Invention

In the process of the present invention, an alkylene oxide is added to a polyhydric alcohol, and then, carboxylic acid is reacted. The OH groups, a terminate of the AO groups, react with the carboxylic acid efficiently, and most of the OH groups are substituted with hydrophobic groups.

The limitation “ $\text{OHV}/(\text{SV} - \text{AV} + \text{OHV})$  in the range of from 0 to 0.3” means that the OH group, a terminate of the AO group, is substituted with a hydrophobic group to a high extent.

The alkylene oxide adducts of the present invention have AO groups in the amount of 330 to 1000 moles per mole of the ester compound.

In the present invention, 330 moles or more of AO groups are important from the viewpoint of the advantages of the claimed invention.

Distinctions over the Cited Art

Urushibata et al. '316 disclose a reaction of compound (A) or (B) with a dicarboxylic acid or anhydride thereof to obtain a different compound from the compound of the present invention. In addition, dicarboxylic acid is used, which is not used in the present invention.

Applicants respectfully assert that Urushibata et al. '316 fail to disclose each and every element of the pending claims. Specifically, Urushibata et al. '316 fail to disclose a compound represented by the general formula (a) as recited in independent claim 11. As such, Applicants respectfully assert that the pending claims are not anticipated by Urushibata et al. '316.

Turning to the second rejection, Ishibashi et al. '243 disclose an advanced reaction of glycerin with fat and oil, which is advanced to an alkylene oxide addition reaction, which is different from the present invention. Ishibashi et al. '243 disclose just a product having 10 to 100 of the added mole number of ethylene oxide units.

In stark contrast, claim 11, as amended, recites, *inter alia*, that "a+b+c is a numerical number of from 330 to 1000."

Moreover, Ishibashi et al. '243 actually teach away from the present invention. Ishibashi et al. '243 recite that "when a deinking composition comprising a deinking agent, as an effective component, wherein an average molar number of EO addition exceeding 100 mol is used, the disadvantage that the ink is dispersed is added" (col. 5, lines 32-35). In other words, Ishibashi et al. '243 teach away from the added mole number of ethylene oxide units exceeding 100, which is lower than the claimed range of the present invention. Similarly, Ishibashi et al. '243 also recite that when "outside the range of from 50 to 100 mol is used, the deinked pulp obtained is contaminated with a large amount of unliberated ink" and "it is difficult...to obtain a deinked pulp having a high b value and a good appearance" (col. 5, lines 27-31). As stated above, the present invention recites a range outside the range of 50-100 mol. Thus, Ishibashi et al. '243 also teach away from the present invention in this regard.

Turning to the third rejection, Ikeda et al. '169 disclose nothing about the AO-added mole number ranging from 330 to 1000 according to the present invention. The Ikeda et al. '169 reference is limited to disclosing 0 to 200 for EO and 0 to 150 for PO.

Accordingly, the present invention is not anticipated by any of the cited references since the cited references do not teach or provide for each of the limitations recited in the pending claims.

For completeness, Applicants also respectfully submit that the cited references do not render the present invention obvious because the references provide no disclosure, reason, or rationale that would allow one of ordinary skill in the art to arrive at the present invention as claimed.

### **CONCLUSION**

The Examiner is respectfully requested to issue a Notice of Allowance, clearly indicating that each of instantly pending claims 3-4 and 9-11 are allowed and patentable at present.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad M. Rink (Reg. No. 58,258) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: FEB 05 2009

Respectfully submitted,

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